

AMENDMENTS

The Examiner is respectfully requested to make the following amendments.

IN THE CLAIMS:

Please amend the following claims:

1. (Previously presented) An isolated nucleic acid encoding a yeast lactate dehydrogenate protein having an amino acid sequence identified by Seq. ID No. 22.
2. (Cancelled)
3. (Currently amended) An isolated nucleic acid according to Claim 1 encoding a yeast lactate dehydrogenate protein that hybridizes to a nucleic acid probe identified by Seq. ID No. 21 under ~~high stringency~~ conditions of a temperature of 42°C in a solution containing 50% formamide, 5x Denhardt's, 5x SSPE, 0.1% SDS, 100 µg/mL herring sperm DNA, 1 µg/mL polyA DNA.
4. (Currently amended) An isolated nucleic acid according to claim 3 wherein hybridization is detected after washing under ~~high stringency~~ conditions of room temperature in a solution of 2x SSC for 5 min and repeated, followed by two 30 minute washes in a solution of 1x SSC - 0.1% SDS at 68°C.
5. (Cancelled)
6. (Cancelled)
7. (Currently amended) A recombinant expression construct comprising a nucleic acid having a nucleotide sequence encoding a yeast lactate dehydrogenate protein according to Claim 1 ~~Claims 1 or 2~~, wherein the nucleic acid is expressed in a yeast cell.
8. (Previously presented) A recombinant expression construct according to Claim 7, further comprising a yeast promoter operably linked to the nucleic acid encoding a yeast lactate dehydrogenate protein.
9. (Previously presented) A recombinant expression construct according to Claim 7,

further comprising a yeast transcriptional terminator element operably linked to the nucleic acid encoding a yeast lactate dehydrogenate protein.

10. (Previously presented) A recombinant expression construct according to Claim 7, further comprising a yeast replication element derived from a yeast 2-micron circle plasmid.

11. (Previously presented) A yeast cell transformed with the recombinant expression construct of Claim 7, wherein the transformed cell expresses the yeast lactate dehydrogenate protein.

12. (Previously presented) A yeast cell according to Claim 11, wherein the yeast cell is a yeast from genera *Saccharomyces*, *Kluyveromyces*, *Hansenula*, *Candida*, *Trichosporon*, *Yamadazyma*, *Torulaspora* or *Pichia*.

13. (Previously presented) A yeast cell according to Claim 11, wherein the yeast cell expresses a crabtree-negative phenotype.

14. (Previously presented) A yeast cell according to Claim 11, wherein the yeast cell is a yeast species selected from the group consisting of *C. soronensis* and *K. marxianus*.

15. (Previously presented) A yeast cell according to Claim 11, wherein the yeast cell produces a reduced amount of a glycolytic enzyme selected from the group consisting of pyruvate decarboxylase, alcohol dehydrogenate, and acetyl-CoA synthase.

16. (Previously presented) A method for producing lactic acid comprising the step of fermenting a yeast cell culture according to claim 11 in a nutrient medium containing a sugar under conditions whereby at least 50% of the sugar is converted by the yeast cell to lactic acid.

17. (Previously presented) The method of Claim 16, wherein the yeast cell is grown at a temperature from about 35°C to about 55°C.

18. (Previously presented) The method of Claim 16, wherein the nutrient culture has a pH less than about pH 5.0.
19. (Previously presented) The method of Claim 16, wherein the yeast is grown under substantially anaerobic conditions.
20. (Previously presented) The method of Claim 16, wherein the yeast cell is a crabtree-negative yeast cell
21. (Previously presented) The method of Claim 20, wherein the yeast cell is *K. marxianus* or *C. sonorensis*.
22. (Previously presented) The method of Claim 16, wherein the yeast cell produces a reduced amount of a glycolytic enzyme selected from the group consisting of pyruvate decarboxylase, alcohol dehydrogenate, and acetyl-CoA synthase.
23. (Previously presented) The method of Claim 16, wherein the sugar is glucose, xylose, ribose, arabinose, mannose, galactose, fructose, maltose or lyxose.